

## A new Species of *Myrmecophilous* Blattid. (Orthoptera; Blattidae; Corydiinae).

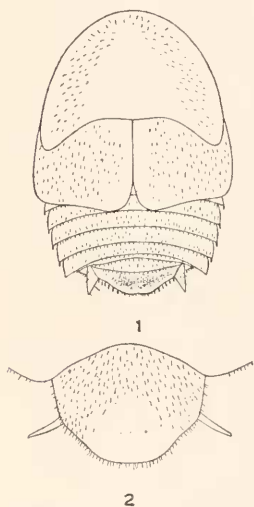
By MORGAN HEBARD, Philadelphia, Pa.

Recently specimens of a species of roach were sent us by Professor W. M. Wheeler, which are found to represent a new species of the genus *Myrmecoblatta* Mann. This genus was placed in the Blattinae, the valvular type of female subgenital plate, in part, being responsible for this assignment. The unarmed ventral femoral margins and other features prevent this association. The genus is clearly nearest *Compsodes* Hebard,<sup>1</sup> and likewise referable to the Corydiinae.

### MYRMECOBLATTA Mann.

1914. *Myrmecoblatta* Mann, Psyche, XXI, p. 172.

GENOTYPE, by monotypy, *Myrmecoblatta rehni* Mann, described from Guerrero Mill, Hidalgo, Mexico.



*Myrmecoblatta wheeleri* new species Type, ♂.  
Fig. 1.—Dorsal view. (x 10.)  
Fig. 2.—Ventral view of subgenital plate (greatly magnified).

The following generic features should, in our opinion, be emphasized: Surface of insect supplied with moderately numerous, short, minute hairs. Ocelli absent. Antennae with first joint large, about twice as long as broad; second joint not as wide, subquadrate; third joint slightly longer than wide; succeeding ten joints not as long as wide.<sup>2</sup> Maxillary palpi with distal joint nearly twice as long as penultimate joint, distal truncation weakly oblique. Clypeus produced, with apex bluntly rounded, concealing the mandibles. Pronotum with disk evenly convex, lateral (and cephalic in male) portions weakly concave; pro-

<sup>1</sup> 1917. Mem. Am. Ent. Soc., 2, p. 208.

<sup>2</sup> One specimen before us, with a complete antenna, shows twenty-five joints in all.

notum extending considerably beyond the head in male, leaving the vertex briefly exposed in female. Tegmina present, reduced, with venation subobsolete, in male; absent in female. Wings greatly reduced in male, absent in female. Cerci tapering to acute apex. Subgenital plate of male symmetrical, with similar, simple, straight, elongate, cylindrical styles, situated in sockets latero-distad, with distal margin of plate between these somewhat produced, convex.<sup>3</sup> Subgenital plate of female valvular, with basal margins of valves straight, convergent, to the rather broadly rounded apex.<sup>4</sup> Ventral femoral margins unarmed, supplied with a few scattered hairs; median and caudal femora supplied with a rather delicate disto-dorsal genicular spine.<sup>5</sup> Tibiae with external faces supplied with numerous short bristles, median and caudal tibiae there furnished with a few spines; all of the tibiae armed with distal spines. Tarsal joints elongate and slender, those of the caudal limbs nearly equaling the caudal tibiae in length. Caudal metatarsus fully as long as the remaining joints. Pulvilli and arolia absent.

***Myrmecoblatta wheeleri* new species.**

Compared with *M. rehni*, the male of the present species is found to differ in the pronotum, with latero-caudal angles more sharply rounded; shorter and truncate tegmina; more reduced wings; much shorter supra-anal plate and much shorter cerci, with articulations subobsolete. From the single immature female of the present species before us we can only determine that females of *wheeleri* are separable from those of *manni*, as are males, by the much reduced cerci, with articulations subobsolete.

TYPE: ♂; San Lucas Toliman, Solola, Guatemala. January 3, 1912. (W. M. Wheeler.) [Hebard Collection, Type No. 440.]

<sup>3</sup>In these features showing considerable resemblance to the Corydiine genera, *Compsodes* and *Latindia*. These genera, in these respects, showing a similarity to the normal Blattinid type.

<sup>4</sup>In this respect much closer to the normal V acute-angulate type found in the Corydiine genera, *Holocompsa* and *Compsodes*, but showing some divergence toward the type normal in the Blattinae.

<sup>5</sup>Mann failed to note the absence of the genicular spine on the cephalic femora, a condition found throughout the Blattidae.

*Description of Type.* Size minute, form broad elliptical. Head hidden under pronotum, evenly and very weakly convex from occiput to clypeus; interocular space decidedly broader than that between antennal sockets. Pronotum with latero-caudal angles acute-angulate, bluntly rounded; caudal margin rather strongly concave, except mesad where a brief and feeble convexity is indicated. Tegmina subquadrate, distal margin truncate, weakly concave; venation obsolete, except humeral trunk, which is weakly indicated. Wings minute, vestigial, with venation obsolete; anterior field oval, posterior field indicated by vestigial tissue. Dorsal surface of abdomen unspecialized; median segment extremely narrow (longitudinally); first to sixth segments with caudal margins transverse but latero-caudal angles very feebly produced, almost rectangulate, with acute apices each supplied with a bristle; seventh and eighth segments transversely narrower, the eighth with caudal margin broadly convex between the cerci. Supra-anal plate delicate in structure, bilobate, about three times as wide as its greatest length; lateral margins weakly convex convergent, armed with bristles; distal margin briefly acute-angulate emarginate mesad, with lateral portions weakly convex, curling dorsad and supplied with numerous hairs; latero-caudal angles broadly rounded.<sup>6</sup> Cerci conical, extending as far as distal margin of supra-anal plate, apex acute, articulations subobsolete. Concealed genital hook situated sinistrad, elongate and slender, distal portion curved sharply dextrad, forming nearly a semicircle, with apex acute. Subgenital plate broader than long; lateral margins straight, parallel to style sockets, distal portion of plate between these moderately produced with distal margin broadly convex. Styles and limb armament as given in generic diagnosis. Pulvilli and arolia absent.

A single immature female before us shows the ocular, pronotal and cercal development similar to a male in the same instar. The subgenital plate<sup>7</sup> shows indications of a distal medio-longitudinal sulcation, while from within the succeeding segment projects, showing styles similar to those of the male sex.<sup>8</sup>

*Measurements (in millimeters).<sup>9</sup>*

| ♂            | Length<br>of<br>body | Length<br>of<br>pronotum | Width<br>of<br>pronotum | Total<br>length of<br>tegmen | Exposed<br>length of<br>tegmen | Width<br>of<br>tegmen | Length<br>of<br>cercus |
|--------------|----------------------|--------------------------|-------------------------|------------------------------|--------------------------------|-----------------------|------------------------|
| TYPE.....    | 3.94                 | 1.43                     | 2.84                    | 1.7                          | 1.43                           | 1.63                  | .34                    |
| Paratype.... | 4.08                 | 1.63                     | 2.85                    | 1.85                         | 1.36                           | 1.56                  | .34                    |

<sup>6</sup> In texture and many features of contour, similarity with *Compsodes schwarzi* Caudell is found.

<sup>7</sup> See generic diagnosis. In adult females of this species there is little doubt but that this plate is much as in *rehni*.

<sup>8</sup> This condition in immature females has been observed in other forms of the Blattidae.

<sup>9</sup> Taken under the microscope.

*Coloration.* General coloration cinnamon brown, shading to ochraceous-buff rather broadly along the lateral margins of the pronotum. Underparts and limbs ochraceous-buff, strongly tinged with buckthorn brown.

In addition to the type, one male paratype and a pair of immature examples are before us. These specimens were all taken at the same time, by Professor W. M. Wheeler, from a colony of the ant, *Solenopsis gemmata* (Fabricius),<sup>10</sup> found under a stone on the shores of Lake Atitlan.

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## A Second *Colletes* with Spotted Wings (Hym.).

By T. D. A. COCKERELL, Boulder, Colorado.

In 1868 Cresson described a remarkable Colletid bee from Orizaba, Mexico, having black spots on the wings. He called it *Colletes punctipennis*. Cresson had only the female, but a male was found in F. Smith's collection in the British Museum, collected in Guatemala. This I described in *Annals and Mag. of Nat. Hist.*, July, 1914, p. 11. On April 20, 1912, Mr. Aug. Busck collected at Porto Bello, Panama, two males of a species very close to *C. punctipennis*, but with the thoracic hair very differently colored. It may possibly prove to be only a subspecies, but as no intermediates are known it is given the specific rank which it probably deserves.

### *Colletes spiloptera* n. sp.

♂. Length about 11 mm.; wings as in *C. punctipennis*, but the rather short hair of thorax above, and of tubercles, bright fox-red (in *punctipennis* the thorax is clothed with short, dense white or hoary pubescence, that on mesothorax shortest and mixed with sparse black hairs, giving the surface a maculate appearance; scutellum with short black pubescence, margined entirely with whitish). Only middle of flagellum (joints 5-9) red beneath; mesothorax very densely punctured; second abdominal segment with punctures conspicuously smaller and denser than on first; genitalia with sagittal wings very large and rounded, stipites covered on apical part with short yellowish hair, but without any long spreading bristles. The malar space is much broader than long.

*Type* in the U. S. National Museum.

<sup>10</sup> Determined by Professor W. M. Wheeler, to whom we take pleasure in dedicating the interesting myrmecophilous roach here described.